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*** YOU HAVE NEW MAIL ***

=> s nucleic acid? and conductive surface
3 FILES SEARCHED...
L1 182 NUCLEIC ACID? AND CONDUCTIVE SURFACE

=> s 11 and hybrid
L2 62 L1 AND HYBRID

=> s 12 and hybrid (2a) surface
L3 2 L2 AND HYBRID (2A) SURFACE

=> d 13 bib abs 1-2

L3 ANSWER 1 OF 2 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
AN 1999-372624 [32] WPIDS
CR 2000-482839 [41]
DNN N1999-278010 DNC C1999-110177
TI Oligonucleotides tagged with photoinducible redox-active unit - for
binding to conductive surfaces for electrochemical detection of
hybridisation.

DC B04 D16 S03
IN HARTWICH, G
PA (HART-I) HARTWICH G
CYC 1
PI DE 19901761 A1 19990701 (199932)* 28

ADT DE 19901761 A1 DE 1999-1001761 19990118

PRAI DE 1999-19901761 19990118

AN 1999-372624 [32] WPIDS

CR 2000-482839 [41]

AB DE 19901761 A UPAB: 20000905

A nucleic acid oligomer with a photoinducible
redox-active unit comprising one or more electron donors and one or more
electron acceptors covalently attached is new.

Also claimed is (1) a modified conductive surface
comprising one or more modified nucleic acid oligomers
as above bound to a conductive surface; and (2) a
method for electrochemically detecting oligomer hybridisation, comprising
contacting a modified conductive surface as above with
nucleic acid oligomers.

USE - Probes comprising single-stranded DNA, RNA or PNA (peptide
nucleic acid) oligomers linked at one end to a
conductive surface and at the other end to a

photoinducible redox-active unit can be used to detect hybridisation of a target oligonucleotides. This is possible because hybridisation increases the electrical communication between the **conductive surface** and the photoinducible redox-active unit. The probes may also be used for sequencing and detection of mismatched basepairs.
Dwg. 0/6

L3 ANSWER 2 OF 2 USPATFULL on STN
AN 1999:128361 USPATFULL
TI Polymer-electrodes for detecting **nucleic acid**
hybridization and method of use thereof
IN Thorp, H. Holden, Chapel Hill, NC, United States
Loomis, Carson R., Durham, NC, United States
Napier, Mary E., Carrboro, NC, United States
PA The University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)
Xanthon, Inc., Research Triangle Park, NC, United States (U.S. corporation)
PI US 5968745 19991019
AI US 1997-950503 19971014 (8)
RLI Continuation-in-part of Ser. No. US 1996-667338, filed on 20 Jun 1996, now patented, Pat. No. US 5871918, issued on 16 Feb 1999 which is a continuation-in-part of Ser. No. US 1995-495817, filed on 27 Jun 1995, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Campbell, Eggerton A.
LREP Myers Bigel Sibley & Sajovec
CLMN Number of Claims: 33
ECL Exemplary Claim: 1
DRWN 8 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 1490
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A polymer-electrode including (a) a substrate having a conductive working surface; and (b) a polymer layer on the conductive working surface. The polymer layer has a plurality of microfluidic reaction openings distributed throughout the layer. An oligonucleotide probe can be attached to the polymer layer and is available to capture target **nucleic acid**. A soluble mediator can diffuse freely and transfer electrons from the preselected base in the hybridized **nucleic acid** to the conductive working surface of the substrate. An electronic signal generated from the electron transfer reaction is detected and quantitated.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.